

(19)



Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) Publication number:

0 212 314
A3

(12)

EUROPEAN PATENT APPLICATION

(21) Application number: 86110184.8

(22) Date of filing: 24.07.86

(51) Int. Cl.: **G 01 N 21/03, G 01 N 21/51,**
G 01 N 21/00, G 01 N 33/48,
B 01 L 3/00, G 01 N 33/50

(30) Priority: 05.08.85 US 762748
01.07.86 US 880793

(43) Date of publication of application: 04.03.87
Bulletin 87/10

(84) Designated Contracting States: AT BE CH DE FR GB IT LI
LU NL SE

(88) Date of deferred publication of search
report: 19.07.89 Bulletin 89/29

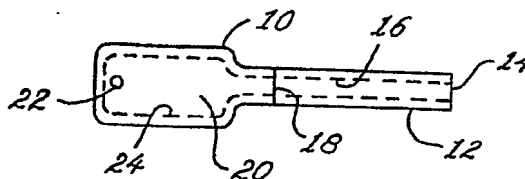
(71) Applicant: Biotrack, Inc., 1058 Huff Avenue, Mountain
View California 94043 (US)

(72) Inventor: Allen, Jimmy D., 1070 Rosemont Avenue, Los
Altos California 94022 (US)
Inventor: Cobb, Michael E., 656 South 113th Street, San
Jose California 95112 (US)
Inventor: Hillman, Robert S., 22774 Majestic Oak Way,
Cupertino California 95014 (US)
Inventor: Winfrey, Laura J., 2215 Pullman, Belmont
California 94022 (US)
Inventor: Ostolich, Vladimir E., 160 Red River Way, San
Jose California 95136 (US)
Inventor: Gibbons, Ian, 1003 Fremont Street, Menlo
Park California 94025 (US)

(74) Representative: Glawe, Dells, Moll & Partner
Patentanwälte, Postfach 26 01 62 Liebherrstrasse 20,
D-8000 München 26 (DE)

(54) Capillary flow device.

(57) Novel methods and devices are provided involving at least one chamber, at least one capillary, and at least one reagent involved in a system providing for a detectable signal. As appropriate, the devices provide for measuring a sample, mixing the sample with reagents, defining a flow path, and reading the result. Of particular interest is the use of combinations of specific binding pair members which result in agglutination information, where the resulting agglutination particles may provide for changes in flow rate, light patterns of a flowing medium, or light absorption or scattering. A fabrication technique particularly suited for forming internal chambers in plastic devices is also described along with various control devices for use with the basic device.



EP 0 212 314 A3

ACTORUM AG

CGK00000911



DOCUMENTS CONSIDERED TO BE RELEVANT			EP 86110184.8
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 4)
X	AT - B - 376 300 (LILJA VAN EVERT) * Page 2, lines 14-18, 34-37; page 3, line 13 - page 4, line 41; claims; fig. 1-15 *	1, 4, 6, 7, 10, 11	G 01 N 21/03 G 01 N 21/51 G 01 N 21/00 G 01 N 33/48 B 01 L 3/00 G 01 N 33/50
D	& US-A-4 088 448 --		
A	DE - A1 - 3 134 611 (BOEHRINGER) * Abstract; page 10, line 1 - page 11, line 24; claims; fig. 1a, 1b *	1, 6	
A	DE - B - 2 007 405 (AMERICAN OPT. CORP.) * Totality *	1, 6	
A	US - A - 4 233 029 (COLUMBUS) * Abstract; claims *	1	TECHNICAL FIELDS SEARCHED (Int. Cl. 4)
A	US - A - 3 799 742 (COLEMAN) * Abstract; fig. *	1, 6	B 01 L 3/00 B 29 C 65/00 G 01 N 1/00 G 01 N 21/00 G 01 N 33/00
D, A	PLASTICS ENGINEERING, August 1985 GALLAGEN S.T. "Laying the groundwork for ultrasonic welding." * Pages 35-37 *	1, 13	
The present search report has been drawn up for all claims			
Place of search VIENNA		Date of completion of the search 25-04-1989	Examiner ERBER
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	



DOCUMENTS CONSIDERED TO BE RELEVANT			EP 86110184.8
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 4)
D, A	<p>TRANSFUSION, vol. 20, no. 6, November - December 1980, Lippincott Company, Philadelphia, Toronto</p> <p>REYNOLDS L.O. et al. "Size distribution of microaggregates in stored blood."</p> <p>* Pages 669-678 *</p> <p>--</p>	1, 2, 6	
D, A	<p>IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING, vol. BME-30, no. 1, January 1983</p> <p>POWERS J.E. "A light-scattering apparatus for the study of cellular suspensions"</p> <p>* Pages 228-231 *</p> <p>----</p>	1, 2, 6	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int. Cl. 4)
Place of search VIENNA		Date of completion of the search 25-04-1989	Examiner ERBER
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			